



# Shaping AQUACROSS Research and Strengthening Impact

Synthesis

**Shaping AQUACROSS Research and Strengthening Impact Meeting  
13 September 2017, Springer Schössl, Vienna, Austria**



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# 1 Introduction, context, and aims of the event

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## ABOUT AQUACROSS

Aquatic ecosystems are home to an array of different species and habitats, and provide numerous benefits called ‘ecosystem services’ to society. These ecosystems are under significant threat by human activity. If the degradation of aquatic ecosystems is not soon reversed, the effects will threaten their capacity to provide ecosystem services and ultimately human well-being. In response, the EU 2020 Biodiversity Strategy has been put in place to tackle the loss of species and habitats and establish targets to protect and preserve biodiversity.

In an effort to halt biodiversity loss across freshwater, coastal and marine ecosystems, AQUACROSS has the following four goals:

1. To support the implementation of the EU 2020 Biodiversity Strategy for an improved functioning of aquatic ecosystems as a whole;
2. To explore, advance and support the implementation of the ecosystem based-management concept, which is understood as management or policy options intended to restore, enhance and/or protect the ability of an ecosystem to remain in good health;
3. To specifically identify and test management and tools to identify the benefits of aquatic ecosystems for stakeholders, businesses, and policy-makers; and,
4. To mobilise policy-makers, businesses, and societal actors at global, EU, Member State, and case-study levels.

## WORK DONE SO FAR (HYPERLINKS TO DELIVERABLES EXECUTIVE SUMMARIES)

AQUACROSS analysed key environmental policies ([D2.1](#)) that potentially increase or reduce aquatic biodiversity loss. This policy review focused on understanding how the ecosystem-based management concept could potentially be used to bring together different policy objectives, which would help form a foundation to better protect aquatic ecosystems and their biodiversity. This work also looks into how key data and information about these environments are gathered ([D2.2](#)). With better information and data, society can make science-based decisions that promote the health and sustainable use of these environments. To this end, AQUACROSS established a beta version of an [Information Platform](#), which aims to provide public access to relevant information on aquatic ecosystem services.

The AQUACROSS Innovative Concept ([D3.1](#)) and its Assessment Framework ([D3.2](#)) were developed with the aim of understanding the complex interactions between natural and human systems in aquatic environments. This work translates relevant concepts to broad

audiences from diverse disciplines and lays the foundation for an integrative framework that can be applied to diverse aquatic habitats and systems.

AQUACROSS is also providing a solid cornerstone to combine scientific disciplines, such as socio-economics, ecology and stakeholder knowledge. Detailed guidance has been developed to identify relevant threats to aquatic biodiversity ([D4.1](#)) as well as to assess links between biodiversity and ecosystem services at different scales ([D5.1](#)). AQUACROSS has also preformed a revision of suitable models and tools ([D7.1](#)) that can allow the integration of the ecosystem services concept into decision-making.

### WHAT'S NEXT...

Through the work undertaken thus far, the project will continue its integrative work across aquatic realms and governance levels. Upcoming deliverables will include a revision and guidance on indicators and methods to assess responses for EBM in relation to the various EU aquatic ecosystems, and on participatory scenario development, which will also include a catalogue of plausible scenarios relevant for different sectors and/or stakeholders.

Ultimately, the AQUACROSS approach is being co-developed with as well as implemented and validated in eight case studies throughout Europe. The work in the case studies is embedded in all parts of the project to ensure information exchange, integration across ecosystems, as well as interaction between disciplines. The case studies are a major source of information and data and will allow the co-creation of concepts and products with policy and relevant stakeholders to ensure results are useful to managers and policy makers thereby ensuring uptake and impact of project results. The Case Studies' storylines have been developed and are included as a background document for the meeting.

### OBJECTIVES OF THE MEETING

The objective of 1-day event, Shaping AQUACROSS Research and Strengthening Impact, was to facilitate an exchange between AQUACROSS researchers, case study representatives and members of the AQUACROSS Science Policy Think Tank on selected project topics so that feedback can be incorporated into upcoming research and work. Meeting participants were invited to provide advice on progress with the project in general throughout the day, but more specifically the meeting was structured around two main sessions. The morning session was used to discuss selected key topics relevant for the practical application of EBM for the protection of aquatic biodiversity in the Case Studies through mutual exchange with stakeholders. Session 2 in the afternoon was focused on discussing and identifying specific opportunities for AQUACROSS to improve its impact for science, policy, and business and ensure that the project establishes a legacy beyond the project's end.

## 2 Shaping AQUACROSS Research and Strengthening Impact – summary

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**Agenda:** See Appendix A

**Participants List:** See Appendix B

**Presentations:** [Available online](#)

The one day event, Shaping AQUACROSS Research and Strengthening Impact provided an opportunity for AQUACROSS researchers, case study representatives and members of the AQUACROSS Science Policy Business Think Tank (SPBTT) to exchange about key management challenges relevant to the case studies and identify critical points for action to ensure impact and legacy of the project. The event, on the 13<sup>th</sup> of September, 2017, brought together 40 members of the AQUACROSS consortium, three members of the AQUACROSS SPBTT, and five representatives from AQUACROSS's Case Studies. The SPBTT is AQUACROSS's external advisory board, made up of experts and leaders from across EU, to support the project with conceptual guidance and expertise. Case Study Representatives are experts in the context of their local case study, and offer essential guidance on the practical application of AQUACROSS within their local regions.

The meeting considered two key topics. After reflecting on progress made by AQUACROSS to date, the morning session focused on the practical application of ecosystem-based management (EBM) for the protection of aquatic biodiversity in the Case Studies. The afternoon session considered the potential legacy of the project – in terms of scientific and policy integration and impact, business development, and long-term contribution to society – and how this impact can be maximised over the last year of the project and beyond.

The AQUACROSS approach is being co-developed with as well as implemented and validated in eight case studies throughout Europe. The work in the case studies is embedded in all parts of the project to ensure information exchange, integration across ecosystems, as well as interaction between disciplines. With their broad geographic distribution and diverse scales, realms, and challenges, the Case Studies were selected to test ecosystem-based management in diverse settings and to showcase specific elements of the EU Biodiversity Strategy.

Biodiversity Strategy	CS 1 North Sea	CS2 Andalusia Morocco	CS3 Danube	CS4 Lough Erne	CS 5 Vouga River	CS6 Sweden	CS7 Swiss	CS8 Azores
Target 1: Fully implement the Birds and Habitats Directives	X	X	X	X	X	X	X	X
Target 2: Maintain and restore ecosystems and their services	X	X	X	X	X	X	X	X
Target 3: Achieve more sustainable agriculture and forestry		X	X		X	X	X	
Target 4: Ensure the sustainable use of fisheries resources	X	X						X
Target 5: Combat invasive alien species				X	X			
Target 6: Help avert global biodiversity loss.		X						X

Figure 1 Links between AQUACROSS Case Studies and Targets of the EU Biodiversity Strategy to 2020

The meeting provided an opportunity to present progress with the work in the case studies and extract relevant lessons from their comparison. Key threats to biodiversity identified in the case studies include extraction of species associated with fishing, habitat sealing, noise, and hydromorphological alterations due to hydro- and wind power development, invasive alien species, and nitrogen and other waste and pollution, among others. Case Studies in AQUACROSS consider a wide range of research questions and challenges relevant to ecosystem based management. A key objective of the case studies is increasing scientific and stakeholder knowledge, and ensuring that decision making is based on the best available knowledge. Identifying tradeoffs between competing societal objectives is also a central theme – be that between hydropower and biodiversity in the Danube and Swiss case studies, or fishing and tourism outcomes in the Azores case study, for example. In all of the case studies, the increase in knowledge aims to support stakeholder decision making and prioritising of management options. Transboundary and multi-level management challenges also abound – for example, in the Morocco–Spain Intercontinental Biosphere Reserve and the multi-river basin and international Danube case studies. Stakeholder engagement and participation, cross-sectoral and transboundary cooperation, and governance – and how these can best improve biodiversity management – are also key themes within the case studies.

A number of these challenges are apparent in the Danube Case Study, which was presented in depth in the morning session. The case study focuses on balancing the ecosystem services provided by hydro dams with the biodiversity impacts of damming the Danube (and the flow on effects on ecosystem functioning, ecosystem services, and ultimately society). Local stakeholder ICPDR (International Commission for the Protection of the Danube River) provided positive and constructive feedback, which included messages relevant for all case studies. In particular, ICPDR emphasized the importance of translating science into action, and ensuring that the AQUACROSS research was focused on practical policy implementation. This, and the incorporation of stakeholder input and co-creation, was a key take away from the session.

The focus of the afternoon sessions was to identify key pathways to impact of AQUACROSS results and findings – and how to maximise their breadth and reach in order to ensure meaningful and long-lasting legacy of the project.

Presentations on achieving impact with the scientific, global and business impact communities were made by Daniel Hering (University Duisburg–Essen, coordinator of the FP7 MARS project), John Matthews (Alliance for Global Water Adaptation, AGWA) and Christine Valentin of the World Ocean Council fueled the discussion. Their presentations focused on the mechanism and audiences for AQUACROSS’s research. Key messages from the presentations and follow-up discussions include:

- Science impact comes through scientific publications and to a lesser extent presentations. Participants agreed that a special issue on AQUACROSS research and a number of summary papers should be a focus of the final year.
- To impact policy, different mechanisms are required. Case study representatives recommended succinct key messages and personal interactions in order to maximize impact. To impact EU policy, AQUACROSS should be active in selected relevant EU working groups related to the Common Implementation Strategy and take advantage of the opportunities within the policy cycle.
- AQUACROSS should also prioritize key selected messages and audience groups and focus energy on attaining impact in these areas. People are interested in a story – AQUACROSS should identify key narratives to communicate its findings.
- Real impact takes time – AQUACROSS will need to keep “turning up” and work on issues for a long time period. Developing follow-up projects should be a focus of the final year, where results and outputs from AQUACROSS can be further taken forward.

- AQUACROSS has a role to play between different fields and sectors and locations. Success as a convener demands minding the gaps of language, disciplines, and working to translate between them, as well as understanding the processes and practices of your audience.
- A pre-condition for AQUACROSS to “go global”, but also to reach the private sector, is to “start speaking SDGs” (Sustainable Development Goals). This requires that part of our communication, or policy briefs are developed and structured around the targets of the SDGs, with the right language/tone used for sharing the messages.
- The business community feels most comfortable working with its peers. It will respond best when it is approached by other business representatives who speak the same language.
- AQUACROSS should highlight its scientific excellence, present across the project, and especially its integrative approach.

The interdisciplinary discussions that typified Shaping AQUACROSS Research and Strengthening Impact meeting ensured it was productive. Internal and external experts provided insight, highlighting the strengths of the project and clarifying the ongoing application of the AQUACROSS Assessment Framework in the case studies. The discussion of impacts and legacy will inform the final year of the project to maximise the impact AQUACROSS’s insights have on science, policy, and business.

### 3 Appendix A: Agenda

Meeting description	
Meeting	<p>Title: <b>Shaping AQUACROSS Research and Strengthening Impact</b></p> <p>Place: Springer Schloßl, Tivoligasse 73, 1120 Vienna</p> <p><a href="http://www.springer-schloessl.at">http://www.springer-schloessl.at</a></p> <p>Date: 13 Sept. 2017 9:00 – 17:30</p>
Background documents	<p><a href="#">AQUACROSS Case Study Storylines</a></p>
Registration: 9:00 to 9:30	
9:00 – 9:30	<p>Registration</p> <p>Coffee will be provided</p>
Opening: 9:30 to 10:00	
9:30 – 9:40	Welcome and objectives for the day – Thomas Hein (BOKU)
9:40 – 10:00	AQUACROSS objectives and progress to date – Manuel Lago (Ecologic)
Session 1: Managing aquatic biodiversity in the case studies 10:00 to 13:00	
Moderated by GerJan Piet (WMR)	
	<p>The objective of this session is to discuss selected key topics relevant for EBM and aquatic biodiversity through mutual exchange so that new lessons can be learned for improving management.</p>
Session 1.1	<i>Background</i>
10:00 – 10:10	The work of AQUACROSS and its case studies in a nutshell (storylines)
10:10 – 10:25	Illustration of the Danube case study
10:25 – 11:00	General discussion
11:00 – 11:30	<i>Coffee break</i>
Session 1.2	<i>Discussing the details: sources of inspiration, exchanging challenges and sharing solutions</i>
11:30 – 12:30	Question-led discussions in three breakout groups covering the diversity of AQUACROSS case studies



<b>Session 1.3</b>	<i>Reporting back</i>
12:30 – 13:00	Breakout group reporting and general discussion: identification of key messages  Introduction to the lunch break exercise
<b>Lunch 13:00 to 14:00</b>	
13:00 – 14:00	lunch break exercise
<b>Session 2: AQUACROSS Impacts and Legacy 14:00 to 16:45</b>	
<b>Moderated by Pierre Strosser (ACTeon)</b>	
	The objective of this session is to discuss and identify specific opportunities for AQUACROSS to improve its impact for science, policy, and business and ensure that it establishes a legacy beyond the project's end.
<b>Session 2.1</b>	<i>Background</i>
14:00 – 14:30	The session will introduce the results of the lunch break exercise and will be used to discuss the AQUACROSS Plan for Exploitation and Dissemination of Results (PEDR)
<b>Session 2.2</b>	<i>Pathways to impact</i>
	Sharing experiences to disseminate and communicate project results with a view to maximise impact to science, policy, business and the general public.
14:30 – 14:45	Achieving impact in research – Daniel Hering (University Duisburg–Essen, coordinator of the FP7 MARS project)
14:45 – 15:00	Achieving a global impact – John Matthews (Alliance for Global Water Adaptation, AGWA)
15:00 – 15:15	Achieving impact in business –Christine Valentin (World Ocean Council, WOC)
15:15 – 15:45	<i>Coffee break</i>
<b>Session 2.3</b>	<i>AQUACROSS legacy – The way ahead</i>
15:45 to 16:45	Based on discussions from the previous sessions, this session will be used to come up with specific actions and ideas that can be put forth to increase the project's legacy and impact.
<b>Closing: 16:45 – 17:30</b>	
16:45 – 17:30	Key messages from the discussions  Tour de table: last message from the Think Tank Members

Closing of the meeting (Organisers)

**Dinner: 19:00**

Social dinner

19:00

Park of Schloss Schönbrunn

Meierei Schönbrunn, Kronprinzengarten, 1130 Vienna

<http://www.landtmann-jausenstation.at>

## 4 Appendix B – Participants list

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